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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/583,861	06/21/2006	Soon Jo Lee	3449-0650PUS1	8586
2292 7590 10/21/2008 BIRCH STEWART KOLASCH & BIRCH PO BOX 747 FALLS CHURCH, VA 22040-0747				
EXAMINER GRAVINI, STEPHEN MICHAEL				
ART UNIT 3743		PAPER NUMBER		
NOTIFICATION DATE 10/21/2008		DELIVERY MODE ELECTRONIC		

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

mailroom@bskb.com

Office Action Summary

Application No.

10/583,861

Applicant(s)

LEE, SOON JO

Examiner

Stephen M. Gravini

Art Unit

3743

Period for Reply -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 25 August 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,2,5-10,12 and 21 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,2,5-10,12 and 21 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 21 June 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB08)
- Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
- Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Claim Rejections - 35 USC § 102

Claims 1-2, 6-7 and 21 are rejected under 35 U.S.C. 102(b) as being anticipated by Wunderlin et al. (US 6,845,290). The claims are reasonably and broadly construed, in light of the accompanying specification, to be disclosed by Wunderlin as comprising:

a key input unit **82** configured to enable a user to select a drying course and a degree of dryness;

a humidity detecting unit **52** configured to detect a humidity of objects, which are loaded in a drum to be dried, during a drying cycle; and

a control unit **58** configured to determine a total number of objects based upon a lowest humidity value detected for a predetermined time and to control a duration of the drying cycle based on the selected drying course, the selected degree of dryness and the determined total number at column 4 lines 24-49. Wunderlin also discloses the claimed features wherein the control unit is configured to extend a drying cycle corresponding to the selected drying course and the selected degree of the dryness based on the determined total number at column 18 lines 25-47, load driving unit for controlling a load according to a control signal from the control unit at column 16 line 64 through column 17 line 19, wherein the humidity detecting unit is formed of an electrode sensor at column 3 line 5, and determining a point of drying ending time when a voltage

reaches a predetermined voltage after the additional drying cycle is performed at column 4 line 13 through column 5 line 9.

Claims 8-9, 11, and 13 are rejected under 35 U.S.C. 102(b) as being anticipated by Kim et al. (US 5,347,727). The claims are reasonably and broadly construed, in light of the accompanying specification, to be disclosed by Kim as comprising:

selecting a desired drying course and a desired degree of dryness based upon a user drying course input and user degree of dryness input at column 3 lines 1-2;

detecting a humidity of objects, which are loaded in the drum to be dried, through the humidity detecting unit while a drying cycle is performed at column 4 lines 48-57 and column 9 lines 25-31;

determining a total number of the objects based upon a lowest humidity value detected for a predetermined time at column 4 lines 65-68; and

controlling a duration of the drying cycle based on the selected drying course, the selected degree of the dryness and the determined total number at column 5 lines 38-55 and column 10 lines 28-49. Kim also discloses the claimed extending a drying cycle corresponding to the selected drying course and the selected degree of the dryness based on the determined total number at column 10 lines 50-63.

Claim Rejections - 35 USC § 103

Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Wunderlin. Wunderlin discloses the claimed invention, as rejected above, except for the claimed predetermined time of ten minutes. It would have been an obvious matter of

design choice to provide a predetermined time, since the teachings of Wunderlin would perform the invention as claimed regardless of the amount of time predetermined.

Claims 10 and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kim in view of Chernetski (US 2004/066303). Kim discloses the claimed invention, as rejected above, except for the claimed predetermined time of ten minutes. It would have been an obvious matter of design choice to provide a predetermined time, since the teachings of Kim would perform the invention as claimed regardless of the amount of time predetermined. Furthermore, Kim discloses the claimed invention, except for the claimed feature of determining a point of drying ending time when a voltage reaches a predetermined voltage after the additional drying cycle is performed. Chernetski, another dryer controller method, discloses that feature in the abstract of that reference. It would have been obvious to one skilled in the art to combine the teachings of Kim with the ending time determination step, as disclosed in Chernetski, for the purpose of optimizing drying efficiency by minimizing energy used in a drying time period.

Double Patenting

Claims 1-2, 5-10, 12, and 21 are rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-15 of U.S. Patent No. 6,931,759 in view of Jeong. Applicant assignee's earlier patent recites the claimed invention, except for the claimed drum. Jeong, another dryer controller method, discloses that feature at paragraph [0004]. It would have been obvious to one skilled in the art to combine the applicant assignee patented invention with the drum, as

disclosed in Jeong, for the purpose of optimizing drying efficiency by minimizing energy used in a drying time period.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP

§ 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Stephen Gravini whose telephone number is 571 272 4875. The examiner can normally be reached on normal weekday business hours (east coast time).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kenneth B. Rinehart can be reached on 571 272 4881. The fax phone

number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Stephen Gravini/
Primary Examiner, Art Unit 3749